

Docket No. 5853-346-1

a machine to perform the various steps disclosed herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] There are shown in the drawings, embodiments which are presently preferred, it being understood, however, that the invention is not limited to the precise arrangements and instrumentalities shown.

[0019] FIG. 1 is a schematic diagram illustrating a system for broadcasting multi-layered information in accordance with one embodiment of the present invention.

[0020] FIG. 2 is a flow chart illustrating a method of broadcasting multi-layered information using a multi-antenna broadcasting system in accordance with one embodiment of the present invention.

[0021] FIG. 3 is flow chart of exemplary steps of a method of broadcasting multi-layered information using a multi-antenna broadcasting system in accordance with one embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0022] FIG. 1 is a schematic diagram illustrating a system 100 for broadcasting multi-layered information in accordance with one embodiment of the present invention. As shown, the system 100 is a multi-antenna broadcasting system. The system 100 can include a signal processor 105, a transmitter 110, and two or more transmitting antennas 115 and 120. Additionally, the system 100 can include one or more wireless devices 125 and 130.

[0023] The signal processor 105 can be configured to receive a signal or message composed of multi-layered information from a content or signal source. The signal processor 105 can use space-time coding to encode the received information. The multi-layered information that is to be encoded by the signal processor 105 can include at least two different layers of information. The first layer can include the most significant or important information, while the second layer can include more detailed, but less important information. The signal processor 105 can encode each different layer of information using a different encoding scheme.

[0024] The technique of sending a message using different layers is referred to as layered source coding. Examples of layered source coding can include, but are not limited to, the image coding standard JPEG-2000 and the video coding standard MPEG-4. These standards use what